

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

REMARKS

The claims have been amended to precisely recite that the fuel cell separator of the present invention, which solves the problems of prior art fuel cell separators, comprises (as do the prior art fuel cells) a base material in the form of a flat plate having a plurality of parallel grooves at one or both sides thereof. This amendment is supported, *inter alia*, in the specification on page 2, lines 3-10. Additionally, new claims 9-12 have been added to the application and limit the water-holdability of the fuel cell of the present invention to the range of 0.3 to 3.0 g per g of the film as described in the specification of the application on page 11, lines 13-16.

For convenience in responding to the Office Action, the headings used in the Action are used below.

Election/ Restrictions

The Action includes an election of species requirement. The species are identified as follows:

(1) the separator recited in claims 1, 3, 5 and 7, wherein the film of the separator is defined by its water-holdability described in the Action as "(separator 1, not

using perishable additive, see specification, page 11, lines 8-16)", and

(2) the separator recited in claims 2, 4, 6 and 8, wherein the film of the separator is defined by its pore volume described in the Action as "(separator 2, using perishable additive, see specification, page 12, lines 5-10)".

Applicants do not understand why the Office has identified species (1) as a separator not using a perishable additive and separator (2) as a separator using a perishable additive. The separator of the invention identified in the Action as separator (1) having a specified water-holdability as recited in claims 1, 3, 5 and 7 is not limited to a separator prepared not using a perishable additive. Additionally, the separator of the invention identified in the Action as separator (2) having a specified pore volume as recited in claims 2, 4, 6 and 8 is not limited to a separator prepared using a perishable additive.

As described in the specification of the present application on pages 11 and 12, when no perishable additive is used, the separator of the present invention has a water-holding property in the range of 0.3 to 3.0 g/g (page 11, lines 8-16), and when the

perishable additive is used, the separator of the present invention has a water-holding property in the range of 0.3 to 5.0 g/g (page 12, lines 5-10)¹. Thus, the separator recited in claims 1, 3, 5 and 7, which has a water-holdability of 0.3 to 5.0 g/g, includes both a separator prepared not using a perishable additive and a separator prepared using a perishable additive.

Similarly, the separator of the invention identified in the Action as separator (2) having a specified pore volume includes both a separator prepared not using a perishable additive and a separator prepared using a perishable additive. As described in the specification of the present application on page 13, lines 18-20, the water-holdability of the film of the separator of the present invention "can also be expressed by pore volume, and the pore volume is in the range of 0.5 to 0.9 cc per cc of film." Nothing is described suggesting that the specific pore volume is related to the use of a perishable additive.

Applicants affirm, with traverse, the election of the species of the separator of the present invention wherein the film of the

¹The Action identifies page 12, lines 5-10, as describing a separator having a specific pore volume. This is not correct.

separator is defined by its water-holdability. Claims 1, 3, 5, 7 and 9-12 read on this species. The election requirement as stated in the Action is traversed because, as explained above, the separator of the invention having the water-holdability recited in claims 1, 3, 5, 7 and 9-12 is not limited to a separator prepared without the use of a perishable additive.

Specification

The abstract has been amended to delete the recitation "The present invention provides".

Claim Rejections - 35 U.S.C. §102/35 U.S.C. §103

Claims 1, 5 and 7 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative under 35 U.S.C. §103(a) as obvious over, JP 49-002023. Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over JP 49-002023 as applied above in view of McBreen (U.S. Patent No. 4,000,005).

These rejections appear to be based on an interpretation of the original claims as reading on a material useful as a "separator" for any purpose and that includes a film comprising a conductive powder and a binder on the surface of the material. The Office does not appear to be giving any weight to the recitation in

the preamble of the rejected claims of "for a fuel cell". In light of such interpretation, the Office is relying on JP 49-002023, which discloses a separator for a battery, to reject the claims.

To avoid the interpretation of the claims as reading on the separator for a battery disclosed in JP 49-002023, the base material of the fuel cell separator of the present invention is now positively recited in the claims as an element of the fuel cell separator in terms that exclude the synthetic fiber fabric of the separator of the reference. Specifically, the base material is recited in the claims as a --flat plate having a plurality of parallel grooves at one or both sides-- as described in the application on page 2, lines 4-5.

The separator of the battery of JP 49-002023 does not include a flat plate having a plurality of parallel grooves at one or both sides and is not disclosed as having the specific water-holdability recited in the claims. Therefore, the 35 U.S.C. § 102 and 35 U.S.C. § 103(a) rejections based on JP 49-002023 are not properly supported and should be removed.

The foregoing is believed to be a complete and proper response to the Office Action dated May 1, 2003, and is believed to place

PATENT APPLN. NO. 09/901,576
RESPONSE UNDER 37 C.F.R. §1.111

PATENT
NON-FINAL

this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,

KUBOVCIK & KUBOVCIK



Ronald J. Kubovcik

Reg. No. 25,401

Atty. Case No. K&Y-157-114
The Farragut Building
Suite 710
900 17th Street, N.W.
Washington, D.C. 20006
Tel: (202) 887-9023
Fax: (202) 887-9093
RJK/cfm